Tobacco Cessation in Cancer Prevention and Treatment: A Call to Action for California Cancer Centers
Executive Summary
Tobacco causes cancer and worsens treatment outcomes. The 2014 Surgeon General’s report, *The Health Consequences of Smoking—50 Years of Progress*, marked the 50th anniversary of the first Surgeon General’s report which concluded that smoking causes cancer. This Call to Action highlights gaps in cessation services from a national and California perspective for California Cancer Centers and providers, and identifies opportunities and resources for improving tobacco treatment and cessation services in oncology settings.

Background

Smoking Causes 12 Cancers and Other Disease
The 2014 Surgeon General’s 50th anniversary report marked the landmark conclusion that smoking causes cancer, a major impact on public health and cancer prevention, and added to the growing list of diseases caused by smoking.\(^1\) Tobacco use causes 30 percent of cancer deaths, causing 87 percent of lung cancer deaths in men and 70 percent of lung cancer deaths in women. Smoking causes 12 types of cancers (head and neck, larynx, esophageal, lung, liver, colorectal, cervix/uterus, bladder, kidney, acute myeloid leukemia), with liver cancer and colorectal cancer added. Besides cardiovascular and pulmonary disease, other new additions include diabetes and rheumatoid arthritis, and impaired immune function. Nonsmokers exposed to secondhand smoke are also at increased risk of developing disease, as a previous Surgeon General’s report concluded “there is no risk-free level of exposure to secondhand smoke.”\(^2\)

Smoking Worsens Cancer Treatment
The 2014 Surgeon General’s report also highlights how tobacco worsens cancer treatment, in a section entitled “Adverse Health Outcomes in Cancer Patients and Survivors.”\(^1\) Using tobacco can worsen treatment for surgical, chemotherapy, and radiological outcomes. There is suggestive evidence that smoking is associated with poorer response to treatment, wound healing, and increased treatment-related toxicity. Cancer patients using tobacco are also at increased risk for cancer recurrence or developing a second primary cancer known to be caused by smoking, such as lung cancer. Continued tobacco use decreases survival rates for cancer patients.

California Has Over Three Million Smokers
California’s general smoking prevalence rate in 2013 is lower than the national average (11.7 percent vs. 18 percent respectively), but there are still 3.8 million smokers in California.\(^3\) California also has populations disproportionately affected by tobacco (racial/ethnic minorities, the lesbian, gay, bisexual and transgender (LGBT) populations, behavioral health, rural and low socioeconomic status) with at least double the prevalence rate of the general population. Also rising in popularity over the past five years, Electronic Nicotine Delivery Systems (ENDS), including vaporizers and electronic cigarettes (e-cigarettes) that heat a liquid (usually containing nicotine, flavorings, and propylene glycol) into aerosol, have been determined in May 2016 to be tobacco products for regulation under the Food and Drug Administration, including products marketed for therapeutic purposes such as a cessation aid.\(^4,5\) Nationally in 2015, 16 percent of high school and 5.3 percent of middle school students were current users of e-cigarettes, making it the most popular tobacco product.\(^6\) California e-cigarette use is rising among young adults (3.5 percent in 2013 for adults, but 7.6 percent among 18-29 year olds).\(^7\)
California Cancer Registry Tobacco Data Shows Cancer Patients Still Using Tobacco

The California Cancer Registry (CCR) started collecting data in 2011 on documented tobacco status from the medical records of newly diagnosed cancer patients. Based on the available data, many California cancer patients have been smokers, and a substantial number of patients are current smokers. Among the 144,805 newly diagnosed California cancer patients in 2011-2013 with a documented tobacco status (Table 1), over half (52.5 percent) were ever smokers and one-sixth (16.2 percent) were current tobacco users. Among the 62,482 patients diagnosed with a tobacco-related cancer in 2011-2013 who had a documented tobacco status (Table 2), almost two-thirds (65.6 percent) were ever smokers and more than a fifth (22.1 percent) were current tobacco users. A limitation of these data is that tobacco use information was only documented in 28.9 percent of cancer records (30.5 percent for tobacco-related cancers). This may be due in part to the first year of data collection, but also compounded by the fact that these data are listed as “required if available” to be reported to CCR only when indicated in the patient’s medical record. The large number of unknown smoking status could also be due to the fact that a positive finding is more likely to be recorded than a negative one.

TABLE 1: Case Counts of Tobacco Use Among All Cancer Patients in the California Cancer Registry, 2011-2013

<table>
<thead>
<tr>
<th>Tobacco Status</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current tobacco user</td>
<td>23,525</td>
</tr>
<tr>
<td>Former tobacco user</td>
<td>52,565</td>
</tr>
<tr>
<td>Never used tobacco</td>
<td>68,715</td>
</tr>
<tr>
<td>Unknown/not stated, no smoking specifics provided</td>
<td>357,282</td>
</tr>
</tbody>
</table>

Source: California Cancer Registry, California Department of Public Health.

TABLE 2: History of Any Type of Tobacco Use Among Patients Diagnosed with Tobacco-Related Cancers, California Cancer Registry 2011-2013

<table>
<thead>
<tr>
<th></th>
<th>Current tobacco user</th>
<th>Former tobacco user</th>
<th>Never used</th>
<th>Unknown/not stated, no smoking specifics provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Cavity and Pharynx</td>
<td>1,071</td>
<td>1,728</td>
<td>1,307</td>
<td>9,130</td>
</tr>
<tr>
<td>Esophagus</td>
<td>377</td>
<td>775</td>
<td>378</td>
<td>3,154</td>
</tr>
<tr>
<td>Stomach</td>
<td>408</td>
<td>1,076</td>
<td>1,320</td>
<td>6,522</td>
</tr>
<tr>
<td>Pancreas</td>
<td>636</td>
<td>1,598</td>
<td>2,035</td>
<td>9,833</td>
</tr>
<tr>
<td>Larynx</td>
<td>355</td>
<td>464</td>
<td>106</td>
<td>1,932</td>
</tr>
<tr>
<td>Lung and Bronchus</td>
<td>5,796</td>
<td>10,109</td>
<td>2,562</td>
<td>37,463</td>
</tr>
<tr>
<td>Cervix Uteri</td>
<td>295</td>
<td>308</td>
<td>935</td>
<td>2,923</td>
</tr>
<tr>
<td>Urinary Bladder</td>
<td>1,171</td>
<td>2,794</td>
<td>1,704</td>
<td>15,949</td>
</tr>
<tr>
<td>Kidney and Renal Pelvis</td>
<td>803</td>
<td>1,778</td>
<td>2,288</td>
<td>12,526</td>
</tr>
<tr>
<td>Acute Myeloid Leukemia</td>
<td>191</td>
<td>457</td>
<td>848</td>
<td>3,315</td>
</tr>
<tr>
<td>Colon &amp; Rectum</td>
<td>1,907</td>
<td>4,501</td>
<td>6,798</td>
<td>31,611</td>
</tr>
<tr>
<td>Liver</td>
<td>811</td>
<td>1,564</td>
<td>1,228</td>
<td>7,834</td>
</tr>
<tr>
<td>TOTAL</td>
<td>13,821</td>
<td>27,152</td>
<td>21,509</td>
<td>142,192</td>
</tr>
</tbody>
</table>

Source: California Cancer Registry, California Department of Public Health.
National Cancer Organizations Recommend Cancer Providers to Treat Tobacco

National cancer and specialty organizations have formal statements on prioritizing tobacco and provide resources, as not enough cancer providers are systematically addressing tobacco cessation (Table 3). A survey of 58 National Cancer Institute (NCI) designated Cancer Centers in 2009 demonstrated that the majority had a tobacco treatment resource (58.6 percent reported a tobacco treatment program within their Center, and 20.7 percent reported external tobacco treatment services in their health care system or affiliated university), but 20.7 percent had no tobacco treatment services for their patients. Only 62 percent of the NCI-designated Centers reported routinely providing tobacco education materials to patients, and less than half reported an employee dedicated to providing tobacco treatment services or a clear commitment to providing services from Center leadership. These data demonstrate a national need for Cancer Centers to incorporate recommended standards, and suggest tying tobacco treatment services into NCI recognition. In December 2009, the NCI Tobacco Control Research Branch and the Office of Cancer Survivorship sponsored a day-long meeting on treating tobacco dependence at NCI designated cancer centers.

A 2012 online survey of American Society of Clinical Oncology members demonstrated that most respondents ask and advise patients to quit, but only 44 percent routinely discuss medication options and 39 percent provide cessation support; patient resistance to treatment and inability to quit were seen as the biggest barriers. Although approximately 30 percent of all patients undergoing elective general surgery procedures smoke, only 13 percent of general surgeons provide smoking cessation counseling.

Table 3: National Cancer Organizations’ Policy Statements about Tobacco Cessation

<table>
<thead>
<tr>
<th>Organization</th>
<th>Statement on Tobacco</th>
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| American Society of Clinical Oncology (ASCO) | “ASCO encourages its members and all oncology professionals to...(r)efrain from the use of all tobacco and nicotine delivery products” [and] (t)reat tobacco dependence as aggressively and compassionately as cancer…” (2003 statement)\(^\text{13}\)  
“Given that the scientific and medical evidence is indisputable that tobacco use poses a huge burden in cancer incidence and death in the United States and worldwide, it is our responsibility as health care professionals and cancer specialists to address the devastating consequences of tobacco use and to help patients with cancer quit.” (2013 statement)\(^\text{14}\) |
| American College of Surgeons        | “To reduce smoking-related surgical complications and smoking prevalence in general, the American College of Surgeons supports the following:  
-Smoking cessation counseling during all nonemergent patient consults  
-Education programs on effective smoking cessation strategies and proper coding of interventions  
-Development and dissemination of quality educational materials for surgeons to use in conjunction with their smoking cessation counseling...  
-Continued measurement and reporting of surgical outcomes of smokers versus nonsmokers”\(^\text{12}\) |
| American Advancement for Cancer Research | “1. Patients with cancer from all clinical settings, participants in therapeutic cancer clinical trials, and cancer screening patients who use tobacco or have recently quit (past 30 days) should be provided with evidence-based tobacco cessation assistance. Even if the assistance is provided through an external service, the cancer patient’s oncology service provider should assume...” |
responsibility for ensuring that the patient receives appropriate care....

2. Tobacco use should be comprehensively and repeatedly documented for all patients so that confounding effects of tobacco on cancer treatment, disease progression, comorbid events, and survival can be evaluated in all oncology clinical trials, from registration to survival endpoints, and in all clinical cancer settings. \(^\text{15}\)

**American Cancer Society**

“Quitting tobacco, or not ever starting, is the single most important action that can be taken to reduce cancer in the U.S. If all adults stopped using tobacco and children didn’t start, about one-third of all cancer deaths could be prevented, billions of dollars would be saved, and millions of family members and friends would avoid the sickness and premature death of a loved one.” \(^\text{16}\)

**National Cancer Institute**

“National Cancer Institute cancer centers represent nodal points to treat tobacco dependence. NCI cancer centers possess the credibility to help smokers quit, and with the greater life expectancies forecast for patients with cancer, addressing smoking at cancer centers has taken on greater importance.” \(^\text{10}\)

**National Comprehensive Cancer Network**

“Treatment plans for all smokers with cancer [should] include the following: evidence-based pharmacotherapy, behavior therapy, and close follow-up with retreatment, as needed….Smoking status should be documented in patient health records and updated at regular intervals; smoking relapse is common, and providers should discuss relapse and provide guidance for patients.” \(^\text{17}\)

**Oncology Nursing Society**

“Nurses must ensure that tobacco use assessment, documentation and dependence treatment is an expected part of care in all cancer inpatient and outpatient treatment programs and protocols, including addressing the stigma faced by many patients affected by a tobacco-related cancer and specifically highlighting the benefits of smoking cessation in the context of a cancer diagnosis. Nurses must be prepared to discuss exposure to second hand smoke at home and workplaces with patients and families, including strategies to create tobacco-free environments.” \(^\text{18}\)

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**Comprehensive Cancer Control Efforts**

The Centers for Disease Control and Prevention (CDC) defines Comprehensive Cancer Control (CCC) as "a process through which communities and partner organizations pool resources to reduce the burden of cancer” that results in risk reduction, early detection, better treatment, enhanced survivorship, and improved quality of life. \(^\text{19}\) CDC started the National Comprehensive Cancer Control Program to facilitate comprehensive cancer control nationwide and help states, tribes, and territories form or support existing cancer coalitions and develop state cancer plans to fight cancer. In order to build and strengthen comprehensive cancer control efforts across the nation The Comprehensive Cancer Control National Partnership (CCCNP) was formed and includes a group of 16 leading cancer organizations in the United States (U.S.).

CCCNP has designated tobacco cessation services for cancer survivors as one of their three main priority issues in 2015 and has a workgroup dedicated to addressing this issue. Planned activities include gathering information regarding CCCNP members’, other national partners’, and CCC coalitions’ efforts to increase tobacco cessation services for cancer survivors as well as developing and implementing a plan to increase awareness of CCC coalition activities and encourage activity by coalitions to increase
tobacco cessation services for cancer survivors. California’s CCC efforts are housed under the California Department of Public Health (CDPH) and include the administration of the California Comprehensive Cancer Control Program (CCCP) and the state cancer coalition, the California Dialogue on Cancer (CDOC). CDOC hosts a tobacco workgroup that informs the coalition of pertinent tobacco control issues in California. CCCP initiates tobacco control activities every year including the development of this Call to Action.

**Call to Action**

**Call to Action for 113 California Cancer Centers and Programs**

This is a call to action to cancer care facilities to provide tobacco cessation treatment services to cancer patients who are smokers. Cancer providers are in an important position to help patients with cancer by treating them in the office, sending the patient to an expert, or referring to a quitline. A cancer diagnosis is a teachable moment: smokers diagnosed with cancer (even if the cancer is not strongly related to smoking and has a good prognosis) are more likely to quit than smokers not diagnosed with cancer. In the large Cancer Prevention Study-II Nutrition Cohort, the two year quit rate was higher among smokers diagnosed with cancer (31.3 percent) than among smokers not diagnosed with cancer (19.5 percent). Addressing the gap in cessation services in oncology settings will contribute to better cancer treatment and survival outcomes.

The target audience for this call to action to address tobacco and cancer in California are the 113 California cancer centers/programs that are accredited through the Commission on Cancer (CoC), a program of the American College of Surgeons. CoC accredited programs and cancer centers provide comprehensive, high quality, multidisciplinary, and patient centered care. The CoC challenges cancer programs to enhance the care they provide by addressing patient-centered needs and measuring the quality of the care they deliver against national standards. Among these, California also hosts ten NCI designated cancer centers. NCI designated cancer centers are recognized for their scientific leadership, resources, and the depth and breadth of their research in basic, clinical, and/or population science.

The U.S. Department of Health and Human Services’ Public Health Service national guidelines “Treating Tobacco Use and Dependence” reviews the evidence for tobacco cessation with special populations and provides strategies and recommendations. Key recommendations include that tobacco dependence is a chronic disease that often requires repeated interventions and multiple attempts to quit, the combination of counseling and medications can double the chances of quitting, and providers and health care systems need to identify and offer treatment to every tobacco user.

**Lung Cancer Screening—A New Opportunity to Address Tobacco Cessation**

Lung cancer screening presents a new opportunity to address tobacco cessation as both current and former smokers are eligible. In December 2013, the U.S. Preventive Services Task Force issued a “Grade B” recommendation (moderate net benefit) for annual screening with low dose computerized tomography (CT) for high risk individuals, as studies have shown a 20 percent decrease in mortality, and called for increased smoking cessation efforts. In February 2015, Medicare’s preventive services benefits cover lung cancer screening for current and former heavy smokers ages 55 to 74 with a minimum 30 pack-year history of smoking (i.e., the equivalent of one pack per day multiplied by 30 years of smoking; former smokers must have quit within past 15 years), and requires that “shared-decision making” with the patient is documented including tobacco cessation counseling. Additionally, imaging facilities are required to submit data to the American College of Radiology Centers
for Medicare and Medicaid Services (CMS)-approved registry for each low dose CT performed, including
documentation that tobacco cessation counseling has been conducted, and there is an optional data
element for secondhand smoke exposure. Studies demonstrate that screening may have the unintended
consequence, however, of smokers feeling protected from cancer with a negative lung cancer screen,27
and clinicians need to consider how to counter these beliefs by explaining the health benefits and
limitations of screening. A pilot trial showed promising results for an intensive 12-week counseling
intervention plus varenicline for patients being seen for possible lung cancer diagnosis.28 Lessons from
this trial about integrating tobacco treatment into a thoracic oncology clinic included addressing
confidence and self-efficacy to quit, allowing for flexibility in scheduling counseling sessions, and
considering if extended and/or periodic booster sessions to offer continued support throughout cancer
treatment and beyond.29 In a review of research around smoking cessation and lung cancer screening, it
is recommended that evidence-based smoking cessation interventions should be offered at every visit
regardless of lung cancer screening results and patient motivation to quit.30

**Insurance Coverage with Affordable Care Act**

The Affordable Care Act has made tobacco cessation a priority with health insurance coverage.
Medicare covers preventive and wellness visits, as well as covering tobacco cessation medications and
counseling for at least two quit attempts a year. Medicaid requires tobacco cessation medication
coverage, and comprehensive tobacco treatment for at least pregnant women. Employer-sponsored
insurance must cover tobacco cessation treatment since it is rated highly by the U.S. Preventive Services
Task Force. The uninsured can still access free telephone counseling through quitlines.

California Department of Health Care Services (DHCS), administrator of the Medi-Cal Program, has
prioritized tobacco cessation as a key preventive health goal. The number of enrollees in the state
Medi-Cal system has increased from 8.6 million to 13.3 million between October 2013 to February 2016,
roughly 30 percent of the state’s population. In 2014, DHCS issued an all-plan policy letter to its
Medi-Cal Managed Care plans outlining a comprehensive tobacco cessation benefit that includes
identifying tobacco users, coverage of tobacco cessation medications, promotion of tobacco cessation
services and provider training.31

**Quality Measures for Tobacco Treatment and Cancer Care in Hospitals and Clinics**

Tobacco quality measures may be generally reported by providers or health systems. “Meaningful Use,”
a federal incentive program for electronic medical record users, has a required measure for
documenting tobacco status and optional measures for documenting tobacco intervention.32 CDPH has
also designated the California Smokers’ Helpline as meeting the Meaningful Use “Public Health
Specialized Registry” reporting measure.33 This designation as a Specialized Registry helps link public
health and health care systems, and data in this registry can be used both to help individual tobacco
users quit and to understand larger trends in the tobacco-using population.

California’s safety-net hospitals have begun reporting on their outpatient tobacco intervention rates
(smokers who received or were referred for counseling) in 2012 through the Delivery System Reform
Incentive Program.34 The documented California tobacco cessation intervention rates averaged below
50 percent with a range from 1.6 percent to 98 percent, but differences in methodologies and
transitions to new electronic medical records will improve the reporting on this measure. The Medicaid
waiver program has been renewed for 2016-2020, called Public Hospital Redesign and Incentives in
Medi-Cal (PRIME), which includes outpatient tobacco cessation counseling as a quality measure in its
projects.35 Tobacco counseling in the outpatient setting, including for specialty care, will be measured
biannually for hospitals participating in PRIME.36
The Joint Commission revised its tobacco quality measure for hospitals, which used to be mandatory for three medical conditions, into a more comprehensive tobacco measure for all patients. These three tobacco measures document 1) current smoking status, 2) medications and counseling offered, or refused during a hospital stay, and 3) medications and referrals offered, or refused at discharge. Hospital inpatient psychiatry facilities have been required to report to Centers for Medicare and Medicaid Services on these measures since January 2015. CMS is proposing to have an electronic Clinical Quality Measure (eCQM) available for PPS-Exempt Cancer Hospital Quality Reporting (PCHQR), Hospital Inpatient Quality Reporting (IQR), Hospital Outpatient Quality Reporting (OQR), Ambulatory Surgical Center Quality Reporting (ASCQR), and Electronic Health Record Incentive Program for eligible Hospitals.

In 2006, ASCO began measuring tobacco quality measures in its Quality Oncology Practice Initiative (QOPI), an oncologist-led, outpatient practice–based quality assessment and improvement program. Early results demonstrated that while outpatient oncology practices were almost always documenting tobacco status (97 percent), tobacco cessation services were offered only to less than half of smokers (47 percent). QOPI now has a quality certification program that requires 26 out of over 100 quality measures to perform at the 75 percent threshold, and tobacco cessation is prioritized as a standard that applies broadly to all practices. Table 4 shows that these measures reflect asking about tobacco status, counseling about cessation, and referring for cessation counseling. These QOPI Core measures for tobacco are adapted from the National Quality Forum’s endorsed tobacco cessation measure #0028.

<table>
<thead>
<tr>
<th>QOPI Core Measure Number</th>
<th>Tobacco Cessation Measure</th>
</tr>
</thead>
<tbody>
<tr>
<td>21a</td>
<td>Smoking status/tobacco use documented in the past year</td>
</tr>
<tr>
<td>22a</td>
<td>Smoking/tobacco use cessation counseling recommended to smokers/tobacco users in the past year</td>
</tr>
<tr>
<td>22b</td>
<td>Smoker/tobacco user referred for cessation counseling in the past year</td>
</tr>
<tr>
<td>23a</td>
<td>Smoking/tobacco use cessation administered appropriately in the past year (defect-free measure, 21a, 22a, and 22b)</td>
</tr>
</tbody>
</table>

Tobacco cessation can be a program to fulfill the Committee on Cancer Standards 4.1 and 4.2 for a calendar year. For Standard 4.1 (Cancer Prevention Programs), the cancer committee assesses the cancer prevention needs of their community and patient population, organizes and offers at least one cancer prevention program, and ensures the program is consistent with evidence-based national guidelines and evidence-based interventions. Besides tobacco cessation, smoking prevention in adolescents is another example of a cancer prevention program. For Standard 4.2 (Screening Programs), the cancer committee organizes and offers at least one cancer screening program that is designed to decrease the number of patients with late-stage disease and is targeted to meet the screening needs of the community. There must be a formal process developed to follow-up on all positive findings. Lung cancer screening is an example of such a cancer screening program.

**Cancer Research and Tobacco Assessment**

The National Cancer Institute and American Advancement for Cancer Research (NCI-AACR) has convened a Cancer Patient Tobacco Use Assessment Task Force that identified priority research areas and developed recommendations for tobacco assessment items and timing of assessment in cancer research. The Task Force determined that tobacco use assessment has not been uniform in clinical trials, although it is an important source of variation in clinical treatment trials. A Cancer Patient Tobacco Use Questionnaire (C-TUQ) was developed that includes “Core” items for minimal assessment of tobacco use at initial and follow-up time points (at a minimum by end of protocol), and an
“Extension” set which has been cognitively tested with 30 cancer patients.\textsuperscript{46} Domains include cigarette and other tobacco use status, intensity, and past use; use relative to cancer diagnosis and treatment; cessation approaches and history, and secondhand smoke exposure. Assessment is recommended at study entry, and at a minimum, at the end of protocol therapy in clinical trials.

**Core Questions from the NCI-AACR Cancer Patient Tobacco Use Questionnaire (C-TUQ)**\textsuperscript{45}

<table>
<thead>
<tr>
<th>Question</th>
<th>Answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have you smoked at least 100 cigarettes (5 packs=100 cigarettes) in your entire life?</td>
<td>Yes, No, Don’t know/Not Sure</td>
</tr>
<tr>
<td>4. How many total years have you smoked (or did you smoke) cigarettes? Do not count any time you may have stayed off cigarettes.</td>
<td>Answer: ___ Years if you smoked less than one year, write “1.”</td>
</tr>
<tr>
<td>5. On average when you have smoked, about how many cigarettes do you (or did you) smoke a day? A pack usually has 20 cigarettes in it.</td>
<td>Answer: ___ Number of cigarettes per day.</td>
</tr>
<tr>
<td>6. How long has it been since you last smoked a cigarette (even one or two puffs)?</td>
<td>Answers: I smoked a cigarette today (at least one puff).  1-7 days. → Number of days since last cigarette: ___  Less than 1 month. → Number of weeks since last cigarette: ___  Less than 1 year. → Number of months since last cigarette: ___  More than 1 year. → Number of years since last cigarette: ___  Don’t know/Don’t remember.</td>
</tr>
</tbody>
</table>

**Resources and Tools**

**5A’s Framework**

The “5 A’s”\textsuperscript{23} is a framework for providers to offer tobacco treatment: Ask about tobacco, Advise to quit, Assess readiness to quit, Assist the quit attempt, and Arrange follow-up. The California CCCP has convened a Tobacco Stakeholder Advisory Group that recommends the “5 A’s” or “Ask, Advise, Refer” steps below for every California cancer center to offer tobacco cessation assistance at every clinical encounter.

**1) ASK: Tobacco Status at Every Visit and Document**

“Meaningful Use,” a federal incentive program for electronic health record implementation, has a core measure for tobacco status to be identified within the past two years of a patient’s encounter. Tobacco status should be assessed at every encounter, however, since even quitters may frequently relapse. Use in the past 30 days is also considered to be a timeframe for current use. ENDS (e.g., e-cigarettes, vaporizers, hookah pens) should also be documented as a tobacco product,\textsuperscript{4,5} although patients may not equate “vaping” as using a tobacco product like “smoking.” Passive smoking, or nonsmokers being exposed to tobacco smoke, should also be assessed. A screening question could be included in an intake questionnaire entered by the check-in staff, medical assistant vitals assessment, or by the provider.
Cancer providers should be aware how California’s cancer tumor registrars extract the tobacco status information from the medical or physician office record: tobacco status at time of new diagnosis, quitting within or more than one year from date of diagnosis, and tobacco product used (cigarettes, other smoked tobacco products such as pipes and cigars, smokeless tobacco, or “tobacco not otherwise specified” if insufficient information). Accurate information will assist with future epidemiologic studies using CCR.

**CLINICAL TIP:** A comprehensive screening question is “Have you used tobacco or been exposed to smoke in the past month, including vaping?”

2) **ADVISE: Tobacco cessation and elimination of exposure**

Provider advice can double the chances of a patient quitting. Clark, A. (2014). This can be more powerful by tailoring advice with the Surgeon General’s 2014 report findings about how quitting smoking can help with both cancer prevention and cancer treatment outcomes. One barrier for surgeons may be whether short-term cessation leads to postoperative complications, but reviews demonstrate there is no evidence of this. Even short-term cessation results in a measurable reduction in vasoconstriction and irregular heart activity, reverses lack of oxygen to surgical wound sites and increased risk of blood clots, and improves wound healing and pulmonary function within four to eight weeks.

**CLINICAL TIP:** Brief advice can include “Quitting tobacco now will help your cancer treatment with wound healing, reduced risk of infection, and cancer recurrence or new developments.”

3) **ASSESS: Readiness to Quit**

The Transtheoretical Model is a framework describing five stages in the process of behavior change: Pre-contemplation (not planning to quit in next six months), Contemplation (wants to quit but not in the next month), Preparation (planning to quit in the next month), Action (quit within past six months), and Maintenance (quit more than six months). Setting a quit date is a concrete step for smokers in the Preparation stage. For smokers not ready to quit, the “5 R’s” are a framework to explore perspectives and motivate: Relevance, Risks, Rewards, Roadblocks, and Repetition. Whether or not someone is ready to quit, it is important to remind patients of available resources. Smoke-free home environments are important for supporting the quitting process and protecting the health of household non-smokers.

**CLINICAL TIP:** A quick assessment “Do you feel ready to set a quit date in the next month?”

**CLINICAL TIP:** For smokers not ready to quit, assess: “Do you have a smoke-free home and car rule?”

4) **ASSIST: Medications**

There are seven medications approved by the Food and Drug Administration (FDA) for tobacco cessation: nicotine patch, nicotine gum, nicotine lozenge, nicotine nasal spray, nicotine inhaler, bupropion (Zyban), varenicline (Chantix). The University of California (UC), San Francisco has created a medication handout to assist providers with prescribing considerations. E-cigarettes should not be promoted as a smoking cessation aid in lieu of or in addition to any of the approved medications for tobacco cessation, until the FDA evaluates such product marketing claims. In 2015, the U.S. Preventive Services Task Force concluded there was insufficient evidence to recommend e-cigarettes to help people quit smoking. In addition, a meta-analysis
shows 28 percent less success in tobacco cessation for e-cigarette users compared to those who
did not use e-cigarettes. Even if a smoker does not want to quit, many hospitals have smoke-
free campuses and nicotine medications should be offered to relieve nicotine withdrawal
symptoms, similar to treating pain symptoms; withdrawal symptoms are highest within the first
two weeks after stopping smoking.

Pharmacists who follow a protocol approved by the California State Board of Pharmacy are now
able to furnish prescription nicotine replacement therapy within pharmacies. California Senate
Bill (SB) 493 was signed into law in 2013 to expand pharmacists’ duties to furnish medications
without a doctor’s prescription, given that the majority of Californians have access to a
pharmacy but perhaps not a primary care physician. Community or hospital pharmacists can
be an important part of a multidisciplinary team approach for tobacco cessation.

CLINICAL TIP: Tell smokers: “Medications can relieve the craving to have cigarettes,
which is especially important in the first couple weeks after you stop smoking. These
medications can help double your chances of quitting.”

CLINICAL TIP: If not ready to quit “Even if you’re not ready to quit yet, we can help you
with medications if you are in the hospital so you do not have nicotine withdrawal
symptoms like feeling stressed and irritable.”

5) ARRANGE FOLLOW-UP: Referrals

The California Smokers’ Helpline (1800-NO-BUTTS) is a free, statewide, telephone-based
tobacco cessation service, operated since 1992 by UC San Diego Moore’s Cancer Center. Helpline counseling has been demonstrated in clinical trials to double long-term quit rates
relative to self-help materials. Friends and family may call on behalf of a smoker and receive
educational materials; this is especially important if they are exposed to secondhand smoke
from a household smoker. The Helpline is open weekdays, 7 a.m. to 9 p.m., and weekends,
9 a.m. to 5 p.m. There is a texting program on the website for reminders around a quit date.
Services are available through the following dedicated language lines:

<table>
<thead>
<tr>
<th>Phone Number</th>
<th>Language</th>
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<td>1-800-NO-BUTTS</td>
<td>English</td>
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<tr>
<td>1-800-45-NO-FUME</td>
<td>Spanish</td>
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<tr>
<td>1-800-838-8917</td>
<td>Chinese (Mandarin &amp; Cantonese)</td>
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<tr>
<td>1-800-556-5564</td>
<td>Korean</td>
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<tr>
<td>1-800-778-8440</td>
<td>Vietnamese</td>
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Providers can directly refer patients through the Helpline’s web-based referral service
(www.nobutts.org/referral). This simple process only requires verbal consent by the patient, and
entering their contact information. Non-physicians may submit a direct referral. A Helpline
counselor will then contact the patient within 1-2 business days and make up to five attempts to
reach them. Research has found that direct referral can increase patients’ likelihood of
connecting with a quitline 13-fold, compared to simply asking patients to call.

Download/order free educational materials for patients (www.nobutts-catalog.org/collections/health-care-provider-resources), or find smoking
cessation classes offered in each county (www.nobutts.org/county-listing). Provider training is
available through ongoing webinars or in-person request.
CLINICAL TIP: Tell current and passive smokers: “The California Smokers’ Helpline at UC San Diego offers free telephone counseling and educational materials. I can have a counselor call you in a couple days to talk more about a quit plan and medication options.”

Other online tobacco cessation programs can be found at https://smokefree.gov/ (National Cancer Institute) or https://www.becomeanex.org/ (Truth Initiative).

Prevention Resources

California has a strong coalition of organizations focused on tobacco control and prevention, and can provide significant resources to cancer centers.

The California Tobacco Control Program (www.cdph.ca.gov/programs/tobacco or www.tobaccofreeca.com) is one of the longest-running comprehensive tobacco control programs in the United States, and one of the most successful public health interventions in the last 50 years. The California Tobacco Control Program has local lead agency affiliates in every California county which help organize local tobacco control coalitions and promote tobacco prevention and education in the community and schools. The California Tobacco Control Program produces tobacco education materials; both print (www.tobaccofreecatalog.org) and media (www.tobaccofreeca.com), and also funds the California Smokers’ Helpline (www.nobutts.org).

The American Cancer Society has California chapters that have long been engaged in tobacco control efforts – particularly through their Cancer Action Network (http://www.acscan.org/action/ca).

The American Heart Association (www.heart.org) and American Lung Association (http://www.lung.org/), have worked closely with their counterparts at the California chapter of the American Cancer Society to promote tobacco control.

The Smoking Cessation Leadership Center (http://smokingcessationleadership.ucsf.edu/) offers free technical assistance and resources to help providers and others on tobacco treatment and prevention, and works to develop partnerships with organizations and institutions to develop and implement action plans around tobacco treatment and prevention.

The Centers for Disease Control and Prevention, Office on Smoking and Health (OSH) (www.cdc.gov/tobacco) is the lead federal agency for comprehensive tobacco prevention and control. The OSH offers many resources from guidance documents to help develop effective tobacco control programs to an array of resources related to quitting smoking. Basic fact sheets about tobacco cessation are available.
Treatment Resources

ASCO provider and patient resources
Provider resource: “Tobacco Cessation Guide for Oncology Providers” The guide topics include “Talking to Patients about Tobacco Use,” “Motivating Patients to Stop Using Tobacco,” “Treating Nicotine Dependence in Patients with Cancer,” and “Incorporating Tobacco Dependence Treatment into your Practice.”

Patient booklet: “Stopping Tobacco Use After a Cancer Diagnosis: Resources and Guidance for Patients and Families.” This 14-page booklet covers “Benefits of Quitting,” “Talking with your Doctor about your Tobacco Use,” “How to Quit Smoking and Using Tobacco,” “Your Plan to Quit,” and “Resources to Help you Quit.” Cancer centers can order these resources online ($35 for 125 patient booklets).

American College of Surgeons provider and patient resources
American College of Surgeons has a “Quit Smoking Before Surgery Program” that includes provider and patient resources. A one-hour e-learning program with Continuing Medical Education credit, “It Pays for Your Patients to Quit Smoking Before Surgery: Outcomes, Interventions, and Reimbursement” may help providers fulfill patient safety/risk management requirements. A four page patient flyer “Quit Smoking Before Your Operation” addresses risk of healing complications and cancer recurrence.

American College of Chest Physicians Toolkit
American College of Chest Physicians offers a free interactive provider toolkit with treatment protocols and coding tips for tobacco cessation.

Health Care Provider Organizations
California health care provider organizations can be key partners with cancer centers in tobacco control. The California Medical Association (http://www.cmanet.org/) lists advancing public health as a core objective that includes smoking and tobacco use. Other California organizations that represent health care providers who engage tobacco users in health care settings include the California Nurses Association (http://www.nationalnursesunited.org/site/entry/california-nurses-association) and the American Nurses Association of California (http://www.anacalifornia.org/), the California Dental Association (www.cda.org), the California Pharmacists Association (http://www.cpha.com/), and the California Society for Respiratory Care (www.csrc.org). Many of these organizations also have local societies or regions which can more directly partner with cancer centers.

Examples of Systems Change to Address Tobacco Cessation

Cancer Centers and Systems Change:

1) Sloan Kettering Institute for Cancer Research in New York has worked on improving tobacco treatment in oncology care. With a Pfizer Smoking Cessation Grant, they are assessing 200 oncology providers for readiness to address tobacco, and pilot testing a program disseminating the ASCO provider toolkit and providing practice-based support with nine community-based oncology practices in New York City.

2) Hollings Cancer Center in Charleston, South Carolina implemented a program which has a trained cessation counselor addressing tobacco cessation for all cancer patients, emphasizing its
relationship to their care and developing an individualized plan. Evidence-based recommendations are placed into the electronic medical record for clinicians. At discharge, patients receive a follow-up call from an automated interactive voice recorder system that tracks tobacco use and provides real-time referrals to the state quitline upon request.

California Health Systems Change:

1) The five UC health systems (UC Davis, UC San Francisco, UC Irvine, UC Los Angeles, and UC San Diego) have collaborated on “UC Quits,” a UC-wide Tobacco Cessation Network. The project has built technical modifications to the electronic medical record to facilitate tobacco treatment, and the signature project has been a two-way eReferral connecting hospital and clinic providers with the California Smokers’ Helpline. The provider website resource (www.ucquits.com) includes brief 15-30 minute provider training webinar modules on YouTube (www.ucquits.com/training) and available for free educational credit. Further work is continuing to align with quality measures on tobacco.

2) Kaiser Permanente in Northern California has also been a leading example for addressing tobacco cessation systemwide, having reduced its members’ smoking prevalence to nine percent. Since November 2013, Kaiser Northern California has reenergized its efforts with a “50,000 Quitters” campaign. By May 2015, nearly 27,000 of its 200,000 smoking members had quit.

Future Considerations

Comprehensive tobacco treatment can be prioritized and integrated within California cancer centers with recognizing key populations and challenges and utilizing available resources. There are some future areas for consideration to keep the issue visible and monitor progress:

- Integrating tobacco cessation resources into lung cancer screening and other cancer center efforts
- Tracking tobacco status within the California Cancer Registry
- Reporting on tobacco intervention quality measures for cancer centers
- Reporting on California Smokers’ Helpline referrals and service outcomes from cancer centers

First Steps to Act Now on Tobacco Cessation

To get started on improving how your cancer center can address tobacco cessation, start here:

1) **ASK:** Document tobacco status and history in the History and Physical and update at every clinical encounter. The California Cancer Registry will collect information about tobacco status at time of new diagnosis, quit date from time of diagnosis, and tobacco product used.

2) **ADVISE/ASSESS:** Provide the ASCO or American College of Surgeons patient materials, available for download. Go to the UC Quits provider website for brief education on smoking cessation topics (www.ucquits.com/training).

3) **ASSIST:** Reference the UCSF RxforChange Pharmacologic Product Guide for prescription guidelines for the seven FDA-approved medications.

4) **REFER:** Sign up your institution for the California Smokers’ Helpline direct web-based referral service, and submitted patients will be contacted in one to two business days (www.nobutts.org/referral).
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32. Services CI&MM. Medicare & Medicaid EHR Incentive Program: Meaningful Use Stage 1 Requirements Summary. 2010.


45. National Cancer Institute and American Advancement for Cancer Research. Cancer Patient Tobacco Use Questionnaire (C-TUQ). 2016; [http://clincancerres.aacrjournals.org/content/suppl/2016/03/05/1078-0432.CCR-16-0104.DC2/160944_0_supp_0_333333.pdf](http://clincancerres.aacrjournals.org/content/suppl/2016/03/05/1078-0432.CCR-16-0104.DC2/160944_0_supp_0_333333.pdf). Accessed April, 2016.


This Call to Action was developed with guidance by the CDOC Tobacco Stakeholder Advisory Group.

# CDOC Tobacco Stakeholder Advisory Group Roster

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<td>California Dialogue on Cancer</td>
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